

# Supply Chain Council Awards for Excellence in Supply Chain Operations and Management

U.S. Marine Corps

Transformation From Weapon System  
Management to Supply Chain Management

Supply Chain Management Center, Marine  
Corps Logistics Bases

2003 Submission  
February 2003



# Foreword

February 11, 2003

This document contains the Supply Chain Management Center, Marine Corps Logistics Bases, Albany, Georgia submission for the *2003 Supply Chain Council Awards for Excellence in Supply Chain Operations and Management*. Inside are highlights of the Supply Chain Management Center's reengineering effort to transform their existing processes and organizational structure into one exemplifying the SCOR model approach to enterprise-wide Supply Chain Management.

Our transformation is aligned with the Marine Corps' continuing efforts to improve logistics responsiveness to our ultimate customer, the warfighter in the operating forces. Our efforts are a key enabler of the Marine Corps Integrated Logistics Capability (ILC) and Department of Defense Future Logistics Enterprise (FLE) initiatives. Through our efforts, we are shaping the Marine Corps' existing logistics infrastructure and processes into a highly responsive supply chain. The Marine Corps' improvements and strides toward achieving this have directly influenced our country's success and continued ability to sustain combat operations in the global war against terrorism. The SCOR model is being employed to form the Marine Corps' underlying foundation for establishing an enterprise-wide supply chain network and serves as the Supply Chain Management Center's foundation for transforming and organizing ourselves to be the Supply Chain Manager for the Marine Corps.

Our journey this past year involved intensive introspection to map our supply chain management processes based on the foundation of the SCOR model. These efforts focused on the processes and procedures for planning, organizing, and managing the Marine Corps' worldwide wholesale and selected retail supply and logistics activities in support of ground weapons systems and associated secondary reparables. After identifying SCOR related processes, the Supply Chain Management Center devised an organizational structure aligned with the "Plan-Source-Make-Deliver-Return" methodology. It is precisely these SCOR-based processes and organizational structure, that when coupled with the ILC and FLE initiatives, will serve us well into the future in providing integrated and global supply chain management services for the warfighter, enabling the Marine Corps to provide for the national security. *The Marine Corps Logistics Bases' Supply Chain Management Center will be the Marine Corps' enterprise-wide Global Supply Chain Manager, a capability that did not exist prior to this effort!*

Brigadier General Richard S. Kramlich  
Commanding General, Marine Corps Logistics Bases

## **Executive Overview**

*“Reengineering the Supply Chain Management Center, Marine Corps Logistics Bases through SCOR”*

### **Background**

The building of an effective supply chain management operation is an important objective for any logistics provider. Rapidly meeting customer needs in today’s fast-paced environment requires a modern, flexible, and responsive approach. The SCOR model was selected because it offers that approach, and best serves the warfighting needs of our customers, the United States Marines.

In the past, the Department of Defense approach to supply management could be characterized as maintaining a mountain of steel, basically providing a just-in-case inventory. The Marine Corps and other Services stocked vast amounts of materiel that demanded large, integrated teams of Weapon System Managers to track and manage the immense inventory. This approach was obviously expensive and an inefficient strategy for weapons system sustainment.

As a result of Defense transformation efforts to reduce the size of the military footprint and to stress rapid deployment capabilities, the Supply Chain Management Center is moving to a smaller, more highly focused team approach to supply chain management. Marine Corps Logistics Bases (MCLB) is rapidly developing a high quality, extremely effective enterprise-level Supply Chain Management capability through implementing new technology and ground breaking techniques such as the SCOR model approach.

### **Transformation Requirements**

*“Transformation results when change results in one of two outcomes; either an organization develops the ability to do something that was previously unachievable, and/or it develops the ability to perform a function exponentially better than before.”*

*This definition is from the Marine Corps’ Concepts and Programs 2002.*

Achieving transformation is one of our top goals . . . a never-ending process. Constant improvement is not an option; it is the overarching objective of any organization that does not want to become irrelevant or extinct. New challenges, new technology, and new warfare concepts are always on the horizon. Flexibility is key to our ability to leverage the new technologies in meeting emerging concepts and requirements. Using SCOR as our foundation provides us this flexibility.

Our transformation effort supports the Marine Corps directive to improve logistics responsiveness to the warfighter in the operating forces. This is being done under the umbrella of the highly acclaimed Marine Corps Integrated Logistics Capability initiative. The SCOR model is being implemented to become both the foundation of an enterprise-wide supply chain network and the basis for organizing ourselves for the fight, providing a global Supply Chain Management

capability for the Marine Corps for the first time ever. The results of our efforts meet both tenants of the transformation definition stated above.

### **What We Have Accomplished To Date**

During the past year, we have completely mapped our supply chain management processes according to the SCOR model. We started by focusing on current procedures and processes, then translated them using SCOR to reengineer our business processes into a more holistic, end-to-end supply chain management methodology. This provided us a documented process “roadmap” that gives us the ability to connect all activities and events throughout the supply chain, from the warfighter to the ultimate provider of services and/or products. We are also using this to bridge the gaps that formerly existed between the acquisition and sustainment communities, providing for a drastically improved life cycle management capability for Marine Corps ground weapons systems.

Upon completing the design of our SCOR-based processes, the Supply Chain Management Center reengineered the organizational structure to align it with our “Plan-Source-Make-Deliver-Return” processes. This SCOR-based organizational structure – when joined with the Marine Corps’ Integrated Logistics Capability initiative – enables us to institutionalize and execute our improved supply chain management processes, ultimately improving our effectiveness and efficiency in meeting warfighting requirements. The implementation of SCOR-based processes and organizational structure has transformed the Supply Chain Management Center into the Marine Corps’ enterprise-wide Global Supply Chain Manager, a capability the Marine Corps did not possess before we started.

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## Section 1

# General Information and Project Complexity

### **(1) SUBMITTING ORGANIZATION**

Marine Corps Logistics Bases, United States Marine Corps

### **(2) ORGANIZATIONAL UNIT**

Supply Chain Management Center, Marine Corps Logistics Bases  
Albany, GA 31704

### **(3) MISSION DESCRIPTION**

The mission of the Supply Chain Management Center (SCMC), Marine Corps Logistics Bases, is to plan, organize, and manage Marine Corps worldwide wholesale and selected retail supply chain activities for Principal End Items, Secondary Reparables, and Consumable items assigned to meet Marine Corps operational requirements. We supply Principal End Items (Communications, Ordnance, Motor Transportation, Engineering, Nuclear Biological), and secondary items (reparable and non-reparable) to Marine Corps and DoD units to meet requirements throughout the world. We maintain a supply chain consisting of weapons systems support contractors, retail supply activities, distribution depots, transportation channels including contracted carriers, wholesale integrated materiel managers (IMMs), weapon system product support integrators, commercial distributors and suppliers including manufacturers, commercial and organic (organizational, intermediate, depot) maintenance facilities.

### **(4) AWARD CATEGORY**

Supply Chain Operational Excellence – Department of Defense

### **(5) DESCRIPTION OF THE SUPPLY CHAIN AND THE PROCESSES**

Joint Vision 2010 (JV2010) and (JV2020) provides the framework around which the US Military focuses its efforts to take advantage of technological opportunities and innovations to achieve new levels of effectiveness in joint warfighting. The Joint Chiefs of Staff (JCS) identified four key pillars for continued military success: information dominance, precision strike, precision maneuver, and focused logistics. The Marine Corps' Logistics Campaign Plan calls for the development of expeditionary maneuver warfare (Operational Maneuver From The Sea-OMFTS) concepts and joint concepts to support Sea Based Logistics. Our transformation from the old traditional methods of providing logistics support to a supply chain management capability directly supports the operational capabilities cited in the Marine Corps Logistics Campaign Plan and provides the foundation for supporting Expeditionary Maneuver Warfare (EMW), Ship To Objective Maneuver (STOM) and other expeditionary maneuver warfare concepts and capabilities.

In 1998, the Marine Corps began an aggressive effort to transform Marine Corps logistics processes and supporting information infrastructure in response to changing Marine Corps missions worldwide. These emerging challenges and required expeditionary practices are outlined in the United States Marine Corps Integrated Logistics Capability (ILC) Business Case Study, USMC Logistics Campaign Plan, USMC Logistics Transformation Plan, and Expeditionary Maneuver Warfare concepts.

One of our most significant activities undertaken has been the integration of the acquisition program management and sustainment/weapons systems management functions (PM/WSM integration). The intent of this effort was to make a seamless process for acquiring, sustaining, and disposing of weapon systems and equipment.

In April 2000, two integrated product teams (IPTs) were chartered by Commander MARCORSYSCOM and Commander MARCORLOGBASES to develop and map the functions, processes, and structure to support effective Materiel Life Cycle Management (MLCM) within the Marine Corps and to integrate product life cycle management under the cognizance of a single process owner. A strong foundation was established for MARCORLOGBASES oversight and responsibility for supply chain management and the transformation from traditional logistics practices to an adaptive supply chain management capability. Our ongoing journey in developing a Supply Chain Management Capability has been enhanced through our partnership with the Supply Chain Council and the implementation of the Supply Chain Operational Reference (SCOR) Model.

## **CHARACTERISTICS**

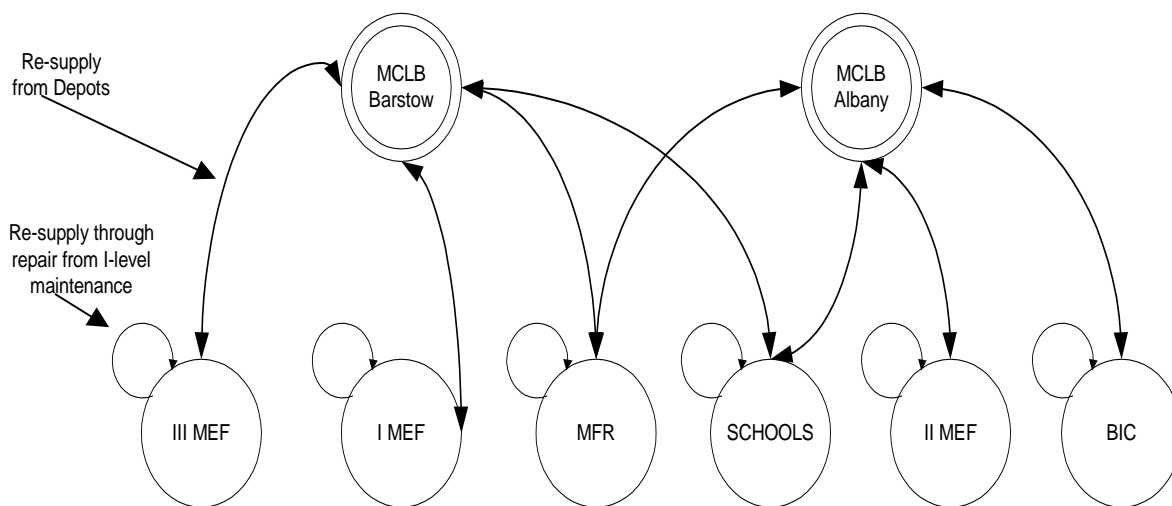
Our previous supply chain can be described as regionally self-sustaining. Each Marine Expeditionary Force (MEF) commander had a pool of consumable repair parts and critical items (secondary reparables), supported through an intermediate supply and maintenance activity to facilitate equipment readiness and availability. This ensured that the Principal End Items (PEI) could be brought out of combat deadline status and sustained independent of external sources.



Currently, each MEF has a Combat Service Support (CSS) organization to support Marine Air Ground Task Force (MAGTF) operations. Operating in four geographical regions, each CSS organization independently owned and managed an inventory of consumable and non-consumable items. Each CSS organization computed its individual requirements and then established requisitioning objectives (RO) and allowances accordingly. The total allowance incorporated the computed RO plus local considerations to accommodate contingency requirements and potential data inaccuracy (safety stock). This resulted in overstated stock requirements throughout the Marine Corps. Because each CSS organization determined the number of items to maintain through an item-centric

approach, which is to buy enough repair parts and reparable to cover the lead-time demand plus some safety level to protect against demand variability, more inventories were maintained within the Marine Corps supply system than required.

Our previous inventory management approach within the Marine Corps can be further characterized as decentralized stocks of reparable and non-reparable items maintained in both the active and reserve Marine Forces. The Supported Activity Supply System (SASSY) Management Units (SMU) or Intermediate Supply Support Activity (ISSA) operates within the MEF CSS organization to manage and control intermediate-level retail inventory for all elements of the supported MEF. Funding is allocated to each SMU/ISSA based upon the factors that make up a stock computation formula and the historical local experience with failure/washout rates. In response to maintenance requests from supported units or customers of the SMU, inventory is obtained from either a Source of Supply (SOS) in the case of a washout, off the shelf of the Repairable Issue Point activity as a direct exchange, or as a delayed issue in the case of maintenance backlog or backorder (BO) situation. In the case of a request submitted from a geographically dislocated unit, the item is passed to a DoD Transportation Management Office (TMO) for shipment using either Defense Transportation System or commercial assets. Inventory is then received at the supporting TMO and distributed to the requesting unit. Figure 1 illustrates the previous flow of material.



**Figure 1 Previous Flow of Material**

## **(6) SUPPLY CHAIN PARTNER ORGANIZATIONS - (EXTERNAL)**

Putting “Collaboration in Practice” has been the basis of establishing relationships with our key supply chain partners. Throughout our project we have included both commercial and other DoD organizations to garnish lessons learned and “best in class” performance. Our partners include the following:

Partner	Number of participants
Deputy Commandant, Installation and Logistics	5
Marine Corps System Command	10
Marine Operating Forces	10
MI-Services	15
USA Space Alliance	4
AERA	4
UNICOR	6
Supply Chain Council	2
Aerospace and Defense SIG	5
Oracle	5
Bearing Point	5

## **(7) FUNCTIONAL ORGANIZATIONS - (INTERNAL)**

A core set from within our Supply Chain Management Center participated within this SCOR project. They included the following:

- Storage and Distribution Department
- Materiel Management Department
- War Reserve Department
- Centralized Secondary Reparable Maintenance Management Department
- Business Management Department

Other internal MARCORLOGBASES partner organizations that are key to our success include the following:

- Maintenance Directorate
- Maintenance Centers
- Contracting Division
- Comptroller

These organizations represented a broad, cross-functional teaming arrangement that included logisticians, buyers, suppliers, and policymakers.

## **(8) SUPPLY CHAIN PARTNER POINT OF CONTACT**

The Marine Corps' primary points of contact for partner organizations are the following:

Brigadier General Richard S. Kramlich  
Commanding General, Marine Corps Logistics Bases  
(229) 639-6812

Colonel Robert E. Love  
Head of Integrated Logistics Capability, Headquarters Marine Corps  
Installation and Logistics  
(703) 695-5939

Colonel (Sel) Michael E. Rudolph  
Director, Supply Chain Management Center (SCMC)  
(229) 639-6471

Mr. Fred Howard  
Deputy Director, SCMC  
(229) 639-6471

Lieutenant Colonel Kenneth M. Brown  
Director, Centralized Secondary Reparable Maintenance Management  
Department, SCMC  
(229) 639-6286

Lieutenant Colonel Ronald D. Wallace  
Director, Storage and Distribution Department, SCMC  
(229) 639-5501

Ms. Sue Wright  
Director, Materiel Management Department, SCMC  
(229) 639-6538

Ms. Pamela Bryant  
Director, War Reserve Department, SCMC  
(229) 639-6602

Mr. Scott Hine  
Consultant MI-Services

## Section 2

# Implementation

### (1) Reason the supply chain project was undertaken and how it was selected

**Historical reference:** Our efforts to integrate product life cycle management under the cognizance of a single process owner resulted in a formalized and refined relationship between the technical product management resources of Marine Corps Logistics Bases

(MARCORLOGBASES) and the acquisition program management resources of Marine Corps Systems Command (MARCORSYSCOM) to accomplish life cycle management of assigned USMC weapons systems. The leadership and personnel from both MARCORSYSCOM and MARCORLOGBASES noted the

absence of documented standard operating procedures related to their assigned jobs and mission. Inventory Managers and Equipment Specialists comprised the Weapons Systems Management (WSM) Teams, and over the years, initiated their own unique methods to accomplish many of their primary tasks. We operated in a “tribal knowledge” environment, where the more senior personnel in the WSM workforce passed those procedures that had worked for them over the years on to their young counterparts. Those stove-piped procedures (some of which were extremely old) perpetuated the problems associated with non-standardization in inventory and supply chain management, especially in the area of conflicting responses to PMs and other customers external to the WSM environment.

Our transformation effort formed the basis for the concept of operations for improving life cycle management of Marine Corps Weapons Systems and Equipment. This included the identification of the roles and responsibilities of **Supply Chain Management (sustainment)** and **Program Management (acquisition)**. The previously distinct roles of the Program Manager (MARCORSYSCOM) and the Weapons Systems Manager (MARCORLOGBASES) have been transformed into a seamless life cycle management environment. An added benefit of the “PM/WSM integration” was the strong foundation established for MARCORLOGBASES’ oversight and responsibility for **supply chain management throughout the entire Marine Corps**.

**Reason for change:** The foundation for our supply chain transformation project was the Marine Corps Logistics Bases’ charter to implement the strategic objectives of both the PM/WSM Integration initiative and the Integrated Logistics Capability (ILC) to improve Operational Availability and readiness of Marine Corps weapons systems and equipment.



## (2) Duration of the project

The reorganization of MARCORLOGBASES to implement the approved results of the PM/WSM Integration effort began in May of 2001. First, the “technical” capabilities/resources of the former WSM Teams were transferred to MARCORSYSCOM. Then we took the first steps to move into a supply chain management oriented arrangement. During this transition period, we evolved initially into a mix of the traditional Marine Corps supply management structure with some basic elements of a supply chain perspective. At the same time, we were beginning to implement several of the ILC initiatives as a part of the Marine Corps strategic logistics transformation. We began the process of embracing the tenants of ILC, which include replacing inventory mass with precision logistics (information and speed) and the capability to gain visibility/command and control of the previously decentralized Marine Corps supply chains.

This project was formally kicked off in July 2002. An Integrated Product Team was chartered and charged to use the SCOR model to further define the “to-be” functional supply chain processes, identify mission, functions, roles, and responsibilities, and develop a recommended enabling organizational structure to provide an integrated supply chain management capability. The process reengineering effort was completed in December 2002. Using the processes as the foundation, we then defined the organizational structure to enable the processes. The organizational changes are currently underway, with a projected completion date of May 2003. We are actively pursuing the information technology to enable the SCOR-based processes in conjunction with the ILC/Global Combat Support System-Marine Corps (GCSS-MC) efforts to acquire the enterprise IT to support the new logistics operational architecture.

## (3) Describe, in detail, the process used to complete the project

We used the SCOR Model’s four-step supply chain engineering methodology. Based on this methodology, we are undergoing a transformation from a weapons systems management capability to arguably the Department of Defense’s only end-to-end Supply Chain Management capability.

Our first step was to identify a SCOR “evangelist,” select core SCOR team members, and attend SCOR Workshops and SCOR User Seminars. This greatly enhanced our ability to quickly become familiarized with the SCOR methodology and the top down approach for implementing SCOR. It was soon realized that SCOR implementation would require executive leadership to provide appropriate guidance and emphasis, and approve the project charter and direction. We then selected a project leader to develop milestones and identify required resources. Resources identified included a Working Integrated Product Team (WIPT) to become the catalyst to facilitate our transformation. Our SCOR evangelist, with the full support of the executive leadership, assembled a SCOR Team to become the catalyst to facilitate our transformation.

### Step 1: Analyze basis of competition

- Competitive performance requirements
- Performance metrics
- Supply Chain scorecard
- Scorecard gap analysis

### Step 2: Configure supply chain

- AS IS, TO BE materiel flow
- AS IS, TO BE materiel process flow
- Cascading design specifications

### Step 3: Align performance levels, practices and systems

- AS IS, TO BE work, transaction, system flow
- Disconnects
- Cascading design specifications

### Step 4: Implement supply chain design

- Institute business practice changes
- Develop technology solution
- Pilot and roll out total solution

The SCOR project road map was used to capture the “AS-IS” processes being performed within the organization. The utilization of the SCOR Model and customization offered by MI Services provided flexibility to describe the processes, not the functions, or the organizational element performing the activity. For example, “AS-IS” Planning functions were being performed in all the Business Units. This resulted in gaps in performance objectives, delayed response to data calls, and too many unplanned requirements. The establishment of competitive performance requirements could now be targeted to a specific, single process owner.

The SCOR project road map captured the “AS-IS” state of the process and derived the desired “TO-BE” future state. The intimacy of Weapons Systems Management required all of the aforementioned processes to be comprised in a team concept that then was represented in many teams “AS-IS,” resulting in unnecessary duplication of effort and organizational structure.

Our ongoing transformation from Weapon System to supply chain management then enabled us to analyze our basis for competition across the broad spectrum of supply chain products and services provided to the operating forces.

The cultural and organizational changes required to accomplish these objectives within the Supply Chain Management Center have been identified and are based predominately upon the principles inherent in the Supply Chain Council’s SCOR Model. The overall goal of the Supply Chain Management Center’s transformation was based upon identifying and aligning our processes to the SCOR Model, and then sharing those processes with our business partners to forge streamlined, improved business relationships. The process reengineering effort highlighted the following:

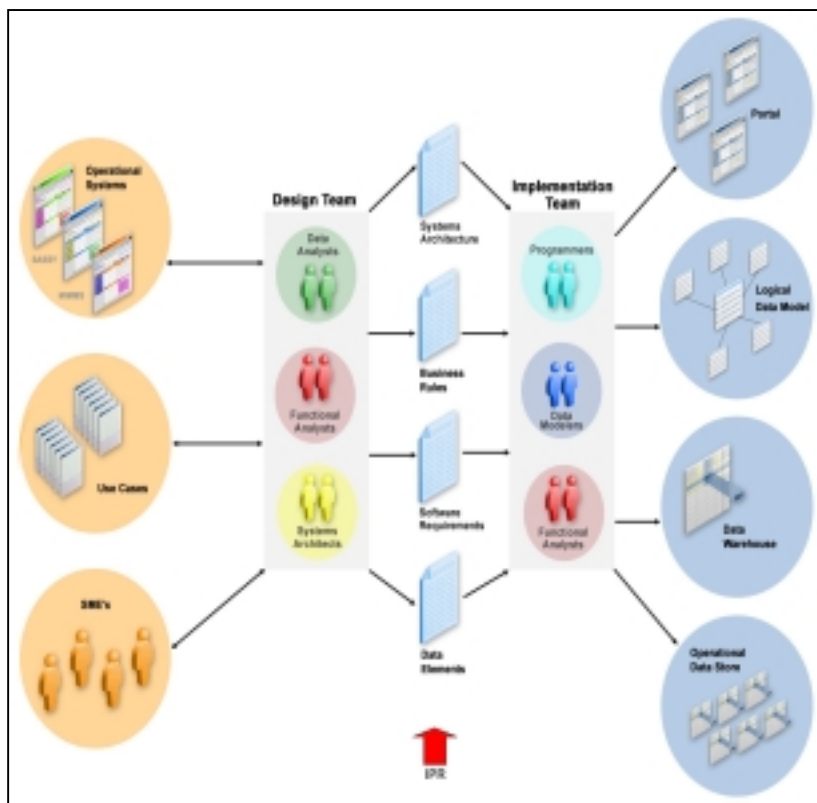
- supply chain planning activities were decentralized throughout the organization
- we lacked a coherent capability to measure performance/execution of materiel management, distribution, and the overall supply chain
- we lacked a coherent capability to manage supplier performance
- customer relationship management was decentralized throughout the organization
- material management and storage/distribution functions were not aligned

Under our previous construct of management, as noted in Figure 2 below, we had multiple WSM Teams receiving products or services from multiple suppliers. We had no “enterprise-wide” understanding or perspective of how any of our suppliers were performing.



Additionally, we in many cases viewed our suppliers and, believe it or not, even customers as adversaries who are not to be trusted. Under the weapons systems concept, we had many traditional functions grouped into WSM Teams, such as, procurement, storage, distribution, and inventory management. Our materiel management processes were considered a separate “silo” activity, and our work force had little or no functional process communication with other internal functions, suppliers, or customers.

The utilization of SCOR has enabled us to align our processes around the basic tenants of supply chain management, Plan, Source, Make/Maintain, Deliver, and Return. We are also embracing the SCOR approach for using performance metrics to provide meaningful measures of supply chain effectiveness, and highlighting the association of risk and benefit from both a customer and internal perspective. Starting with each element of SCOR, we decomposed what we do, how we currently enable our processes and assessed how we were organized to accomplish our mission in terms of SCOR. SCOR provided us a forum to discuss our current practices with key internal members and make changes to provide for a more holistic perspective of the end-to-end supply chain. These sessions led to the discovery of problems as well as the identification of remedies to correct problems.



After completing the daunting and painful task of reengineering our functional processes, we began the difficult task of aligning the organizational structure to enable the processes. We used our SCOR-based functional roadmap as the basis for identification of the skill sets and grade levels necessary to accomplish the activities in our new supply chain management model. The result is the creation of an organization that is capable of performing in an integrated, end-to-end supply chain environment. The new organizational structure

integrates the previously disjointed functions/activities, and provides a means to command and control Marine Corps supply chain activities to meet operational requirements. The combination of the reengineered processes and organization puts the Supply Chain Management Center in the position of providing a capability to perform supply chain management for all Marine Corps forces, a previously non-existent capability.

#### (4) Identify significant challenges encountered, the process for resolution, solutions, and best practices

To transform the organization from weapon system to supply chain management it was realized that our management practices had to be reviewed along with our Information Technology (IT).

Management had performed under current management principals for over twenty years. There was an obvious comfort zone, that, “let’s face it, won the Cold War”. But instinctively we knew change was required. As complicated as IT can be, the most significant change has been the culture. The change is as much about how you look at the process as the process itself. The management training effort was a “building block” approach. In concert with the IPT’s efforts, training was obtained from the Supply Chain Council, APICS, Penn State University, and attendance at multiple professional seminars. Each of these forums is designed to enhance the professional development and understanding of the fundamental tenets of SCM as espoused by academic experts and practiced by “world class” private-sector companies.



With the process in focus, IT requirements become much clearer. The Integrated Logistics Capability initiative (led by HQMC) was the ideal conduit to address these two vital arteries. The “To-Be” ILC high-level OA provided an enterprise wide, integrated view of logistics focused on fulfillment of the demands for products and services generated by the warfighter. It relies on standard supply chain best commercial practices and performance measures, molded into a standard supply chain process to suit the expeditionary nature of Marine Corps’ operations, across the Marine Corps logistics enterprise. Again the SCOR P, M, S, D, R, processes were the framework of the architecture. Rather than concentrate on the vertical, or functional “stove pipes” of the current logistics enterprise, the OA team employed a horizontal or process-oriented view across all of Marine Corps logistics. This OA was developed through the joint collaboration of cross-functional government subject matter experts (SMEs) and commercial supply chain experts, who vetted the OA standard processes to ensure supportability of future demand generation and fulfillment for products and services across the Marine Corps.

#### (5) Indicate the metrics used to measure (a) progress and (b) success

Today we buy and sustain inventory-using demand based methodologies, basically investing to meet fill rates. Our existing systems and processes do not relate investment in inventory levels to readiness or operational availability. Our overarching measure of effectiveness (MOE) or metric to measure the impact of this SCOR project is the relevant impact against the operational availability of our ground weapon systems, as noted in the Figure below.

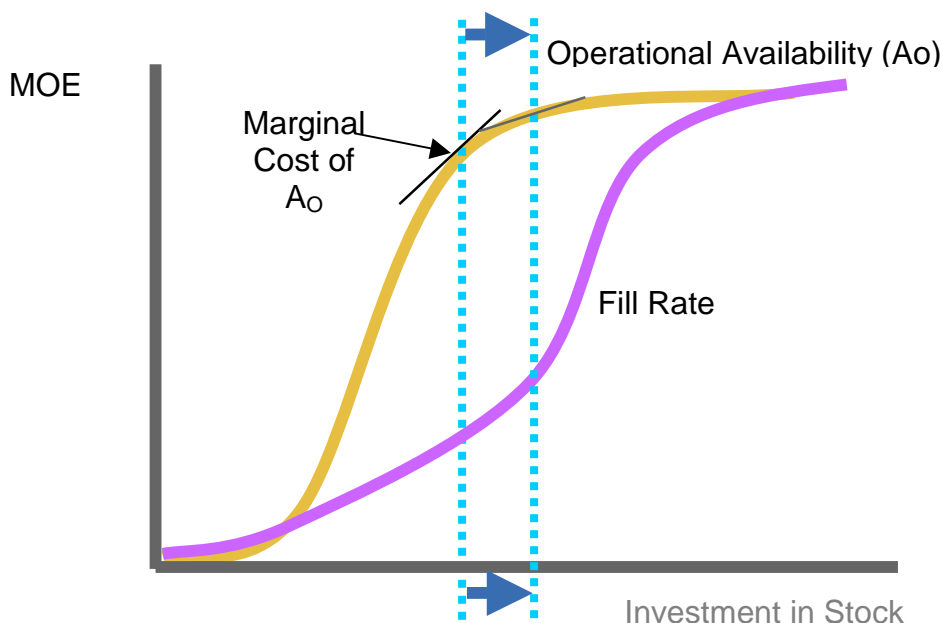


Figure 3 – Benefit vs. Investment

Our transformation metrics capture our supply chain cost, responsiveness, and asset management efficiency. As we move our organization into a SCOR centric model, we will measure the cost of conducting business as embodied in our wholesale cost recovery rate. We will also track the number of items we manage and provide a capability to ensure fulfillment of requirements from a supported unit to any source of supply. The number of backorders will be used to capture our asset management efficiency and trigger analysis of the original plan to determine the reason for variance, basically our replanning cycle. We have developed an internal metric to capture both our asset management efficiency and responsiveness as depicted in our supply chain channel performance. The traditional DoD method such as ‘fill rate’ is simply a component of this metric. This method of performance measurement is based on “best practices” currently employed in the private sector and is in concert with the Marine Corps ILC direction.

$$\frac{\text{Fill Rate}}{\text{Rate}} \times \frac{\text{Order-filling Accuracy}}{\text{Accuracy}} \times \frac{\text{On-Time Shipping}}{\text{Shipping}} \times \frac{\text{Claims Free Delivery}}{\text{Delivery}} \times \frac{\text{On-Time Delivery}}{\text{Delivery}} = \text{Supply Chain Channel Performance}$$

<b>A<sub>s</sub></b>	87%	99.6%	97.0%	98.0%	95.0%	78%
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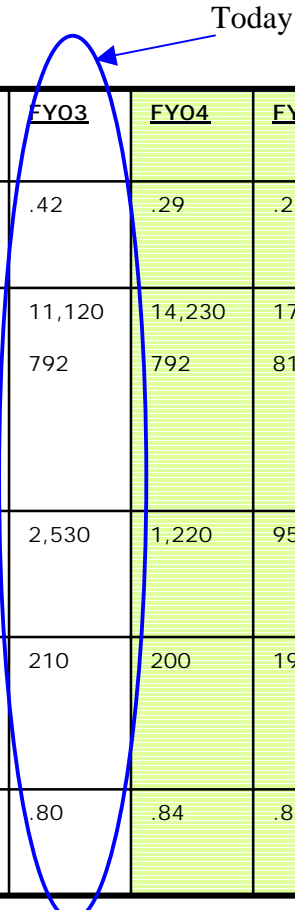
A<sub>s</sub> reflects supply availability, which is one of two contributors to the Operational Availability (Ao) of a weapon system. The Ao is represented in the following

$$A_o = A_M \times A_s$$

Where,

$A_o$  = Operational Availability  
 $A_M$  = Maintenance Availability  
 $A_s$  = Supply Availability

The Table 1 below contains our past performance and our expected increase in performance as we transform into the DoD's only end-to-end supply chain management capability.



<u>Business Transformation Metrics</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>
Wholesale Surcharge	.38	.39	.42	.29	.22
Class IX SECREP	4,895	12,315	11,120	14,230	17,200
Class VII & II SAC3	792	792	792	792	810
Note: USMC is a Register User 492,000 items					
Number of Backorders PEI/SECREP	3,300	2,750	2,530	1,220	950
Number of FTE's Dedicated to SCMC	824	222	210	200	195
Supply Chain Channel Performance	.72	.658	.80	.84	.88

**Table 1: Transformation Metrics**

## (6) Document and quantify cost and performance improvement benefits

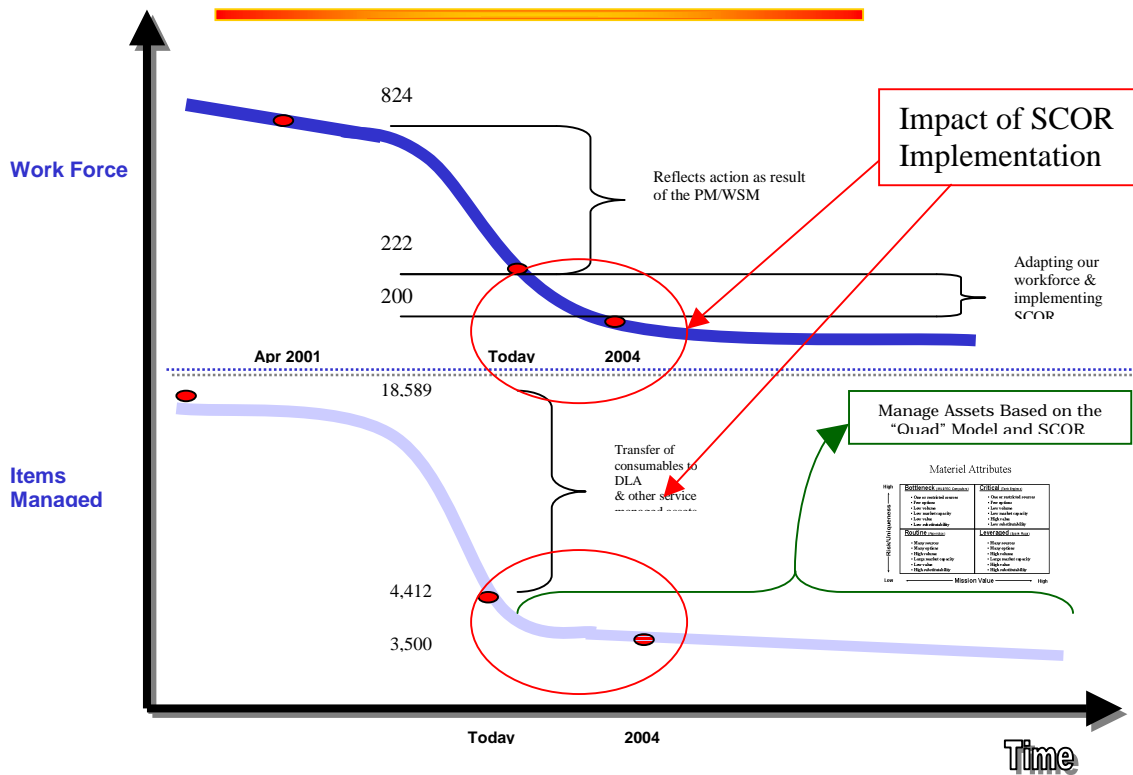


Figure 4 SCOR Impact

The results of utilizing SCOR as our foundation in the development of our supply chain management capability as been dramatic and continues to be the catalyst of our transformation. We have reconfigured our organization along Plan, Source, Make, Deliver, and Return, which has enabled us to immediately realize over \$1.25 Million dollars in re-occurring savings per year and reduces our total supply chain cost. The resulting efficiencies are reflected in our cost recovery rate/surcharge listed in Table 1 and will result in a 20% to 30% savings to the warfighters in the operating forces in FY04.

Using our inventory strategy, our "Quad Model", and SCOR best practices we will improve asset management efficiency by bridging supplier performance to fulfill customer requirements.

With our goal to improve service to our customer the "Warfighter," our centralized planning capability has already reduced inventory investment requirements by over \$155M last year, while maintaining the same, and in many cases, improved levels of support and operational availability of weapons systems. The focus on the end-to-end Supply Chain Management and the customer, rather than on the weapons systems, created a more collaborative environment. During the last fiscal year, our new processes and recently attained total asset visibility enabled us to save

our Marine Forces customers over \$20M by laterally redistributing secondary reparable items throughout the Marine Corps enterprise to meet real-time readiness requirements for weapons systems sustainment.

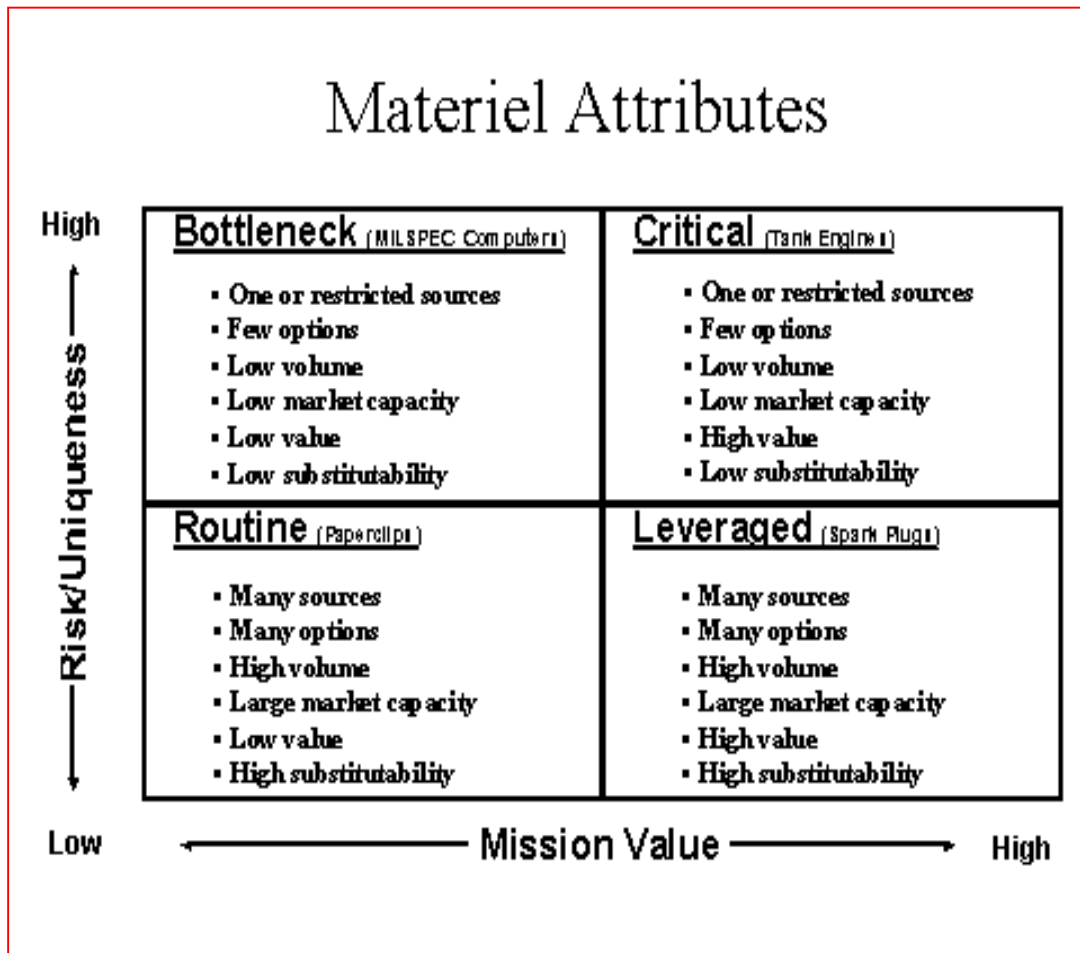


Figure 5 Quad Model

(7) Outline how the success of this effort supports the organizational objectives described in Section 1, Item 2



<ul style="list-style-type: none"> <li>• Global Enterprise Architecture</li> <li>• Flexible Organizational Structural Design for Global Logistics Management Responsiveness, Flexibility...</li> <li>• Joint and Commercial Integration</li> <li>• Decision Support Systems Capability</li> <li>• Enabling Automation</li> <li>• Global Communications</li> <li>• OST in Hours</li> <li>• Situational Awareness of RCT</li> <li>• Reliance Upon Automatic Identification Technology to Automate Information at the Source</li> <li>• Synchronization of Supply, Transportation, Financial Management and Maintenance Functions. Centralized Distribution Management. Improved Organizations: <ul style="list-style-type: none"> <li>✓ Single Process Owner ...Total Asset Visibility</li> <li>✓ Inventory Distributors</li> <li>✓ Forward Eyes and Ears</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• World-Class Facilities</li> <li>• Modern Systems and Platforms</li> <li>• Integrated Acquisition</li> <li>• Real-Time Awareness; Location, Quantity, Condition</li> <li>• Enabling Technologies</li> <li>• Deployment/ Sustainment Infrastructure</li> <li>• Reliability, Availability, Maintainability (RAM)</li> <li>• Financial and Log System Integration</li> <li>• Supply Chain Optimization</li> <li>• Precision Logistics</li> <li>• Integrated Logistics Capabilities</li> <li>• Linked to Echelons of Maintenance</li> <li>• Real-time asset visibility and World Wide Control</li> <li>• Modern Distribution Platforms</li> <li>• Integrated Commercial Logistics Systems</li> <li>• Integration with Commercial Capabilities</li> <li>• Seamless Automation</li> <li>• Common Source Data</li> </ul>
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Table 2 SCM Goals

#### What We Have Accomplished To Date

During the past year, we have completely mapped our current supply chain management processes according to the SCOR Model. We focused on current procedures and processes regarding the planning, organizing, and managing of the Marine Corps' worldwide wholesale and selected retail supply and logistics activities that support ground weapon systems and associated secondary repairables.

The characteristics of management and its structure directly impact the ability to provide effective and efficient "end-to-end" products and services to the warfighter. Reorganizing by SCOR Model functions created a more focused effort on "best-in class" solutions and provides the framework to achieve the objectives noted in Table 2 above.

## Section 3

# Knowledge Transfer

(1) Describe the efforts to share lessons from this effort with other internal organizations

*Prisoners of the system, or prisoners of our own thinking?*

*Peter M Senge  
The Fifth Discipline*

Using SCOR as our foundation to build a Marine Corps supply chain management capability has enabled us to align and then focus our resources on critical processes and links in the supply chain. The SCOR Model formed the basis of dialog and provided us with the opportunity to set targets, schedules, budgets in a manner consistent with the commitment and capabilities of our organization by assessing our logistics system today and stepping outside of our frame of thinking.

Our past efforts, which pursued the ever-elusive “latest acronym” philosophy, failed to realize the fundamentals for our business success never really changed. Understand what the customers’ need, want, and are willing to pay – then provide it. The SCOR Model has become the lexicon in which we are building our core supply chain management capability--putting collaboration in practice. Our key SCM capability is based on a collaborative approach. Through collaboration, we are able to build on transactional and information sharing relationships to achieve a synchronized supply chain plan by establishing joint and bilateral agreements. Our collaborative relationships with both customers and suppliers provide the vehicle to share lessons learned from our utilization of SCOR with all internal and external supply chain partners.

The compelling need to change must be balanced by reasonable expectations. SCOR provides a wealth of metrics and best practices and can become a barrier to internal collaboration if not used appropriately. In the past, the use of performance measures was sub-optimized by applying them to independent segments of our sustainment processes, without regard for the end-to-end perspective. Sharing our direct application of SCOR with other internal organizations, such as our Contracting Directorate and Maintenance Directorate, we are able to tie performance measures directly to measuring the effectiveness of our processes and demonstrate the benefits of SCOR.

(2) Indicate how these results can be transferred to other organizations, and specify the likely candidates for the transference

Starting with the “end” in mind, communicate the Supply Chain strategy and processes to the workforce, supported units, suppliers, and stakeholders. Clearly define roles and responsibilities of all key supply chain partners and identify major enabling processes. Eliminate false perceptions of supply chain partners.

Our results and our belief in the utilization of SCOR can be transferred to any organization that seeks to perform enterprise wide supply chain management. The phrases and terminology may have changed, but the underlying premise is the same; understand what your customer wants, needs, and is willing to pay, and then ensure it is provided. In order to function, logistics organizations must have visibility and knowledge of all links in their supply chains. Our results are being transferred by our demonstrated capability that the United States Marine Corps has the only proven enterprise wide supply chain management capability within the Department of Defense.